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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/571,065

03/08/2006

Hiroshi Onda

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EXAMINER

VILLALUNA, ERIKA J

ART UNIT

PAPER NUMBER

2852

MAIL DATE

DELIVERY MODE

09/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/571,065	Applicant(s) ONDA ET AL.	
	Examiner ERIKA VILLALUNA	Art Unit 2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/22/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9, 11, 13, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Endo et al. (JP 2002-072662 A).

Regarding claims 9 and 13, Endo et al., herein Endo, discloses an image forming device (copying machine, printer, facsimile machine; JPO machine translation, para. [[0001]) comprising: a developing device (fig. 1) arranged to develop an electrostatic latent image comprising: a stirring roller (21) having stirring blades (fig. 2) arranged to stir a developer; a developing roller (23) arranged to transfer the developer to an electrostatic latent image; a control member (24) arranged to control an amount of developer transferred to the electrostatic latent image by said developing roller; and a reflux plate (26) arranged to flow back excess developer by controlling of said control member to said stirring roller (para. [0014], ll. 9-11), wherein one end portion (bottom left portion of plate 26; fig. 1) of said reflux plate is disposed in a vicinity of an outer periphery of said stirring roller (bottom left portion of plate 26 is in vicinity of roller 21), and a part of the developer stirred by said stirring roller flies toward said reflux plate, wherein said one end portion of said reflux plate is disposed above a fly peak point in a vertical direction of said one end portion of the developer provided by a rotation of said

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stirring roller (bottom left portion of plate 26 is disposed above an area where developer flies), wherein said one end portion of said reflux plate is disposed at a position where a plane passing through a rotation center axis of said stirring roller crosses said reflux plate at right angles (a plane passing through a rotation center axis of roller 21 crosses plate 26 at right angles), and wherein an inclination angle of said reflux plate is larger than an angle of repose of the developer (inclination angle of plate 26 is required to be larger than an angle of repose for plate 26 to perform the desired function of guiding surplus developer from to roller 21; para. [0015], ll. 14-16).

Regarding claims 11 and 15, Endo supply discloses a developer supplying portion (toner replenishment; para. [0017], ll. 5-10) arranged to supply the developer, wherein said stirring roller is disposed between said developer supplying portion and said developing roller (roller 21 is disposed between supplying portion and roller 23), and wherein said one end portion of said reflux plate (26) is disposed in a vicinity of an outer periphery on said developer supplying portion side of said stirring member (bottom left portion of plate 26 is disposed in the vicinity of the developer supplying portion).

Claim Rejections - 35 USC § 103

Claims 10, 12, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endo in view of Kawai et al. (JP 09-068869 A).

Regarding claims 10, 12, 14, and 16, Endo discloses the invention as set forth above.

Endo is silent on developer characteristics.

Kawai et al. teaches developer includes magnetic powder having an average grain diameter of 65 μm or smaller (50-130 μm) and toner having an average grain diameter of 7.5 μm or smaller (6-10 μm).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the developing device of Endo with the developer characteristics of Kawai et al. to provide an image forming device executing high-image quality. See Kawai et al., Abstract, Problem To Be Solved.

Response to Arguments

Applicant's arguments with respect to claims 9 and 13 have been considered but are moot in view of the new ground(s) of rejection.

Although applicant is correct that Kamezaki et al. is silent on a fly peak point and inclination angle, if such conditions were not met developer would accumulate on reflux plate 17 and the desired purpose would not be met. Therefore a reflux plate being disposed above a fly peak point of developer and an inclination of such plate being larger than an angle of repose of developer is inherent.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIKA VILLALUNA whose telephone number is (571)272-8348. The examiner can normally be reached on M-F 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David M. Gray can be reached on (571) 272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David M Gray/
Supervisory Patent Examiner, Art Unit 2852

EV